DOCUMENT RESUME

ED 219 488 UD 022 482

AUTHOR	Shore, Rima, Ed.; And Others
TITLE	George Washington High School: A Vitalized Transitional Program for Bilingual School Students. E.S.E.A. Title VII Final Evaluation Report, 1980-1981.
INSTITUTION	New York City Board of Education, Brooklyn, N.Y. Office of Educational Evaluation.
SPONS AGENCY	Office of Bilingual Education and Minority Languages Affairs (ED), Washington, DC.
PUB DATE	81
GRANT	G007905230
NOTE	52p.; For related document see ED 209 278. Partial funding from Chapter 720 of the New York State Laws.
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	*Academic Achievement; Attendance; *Bilingual Education Programs; English (Second Language); High Schools; *Hispanic Americans; *Limited English Speaking; Mathematics Achievement; Native Language Instruction; *Program Effectiveness; Program Evaluation; Program Implementation; Social Studies; *Spanish Speaking; *Transitional Programs; Vocational Education
IDENTIFIERS	Elementary Secondary Education Act Title VII; New York City Board of Education

ABSTRACT

The Vitalized Transitional Program for Bilingual School Students at George Washington High School in New York City provides instruction in English as a second language, native language arts, and bilingual courses (mathematics, science, social studies, and vocational courses) for Spanish-speaking high school students of limited English proficiency. The aim of the program is to assist students in making the transition to all-English instruction and in completing graduation requirements. This report on the program as it was implemented in 1980-81 describes the program setting; student characteristics; program organization; student placement; instructional services; non-instructional activities (curriculum development, staff development, supportive services, and community involvement); program implementation; and program evaluation. Evaluation indicates that: (1) participants mastered English syntax objectives in accordance with program goals; (2) achievement in mathematics, science, and social studies courses varied; (3) achievement levels in native language and vocational courses were generally above the criterion level; (4) program attendance was significantly better than school-wide attendance; and (5) several program participants received academic honors and scholarships. Recommendations for program improvement are presented. (Author/MJL)

ED219488

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

✓ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

J. K. Minter
NYC Bd of Ed

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

FINAL EVALUATION REPORT

E.S.E.A. TITLE VII

Grant Number: G007905230

Project Number: 5001-56-17611

N.Y.S. Chapter 720

Project Number: 5001-56-18406

GEORGE WASHINGTON HIGH SCHOOL
A VITALIZED TRANSITIONAL PROGRAM FOR BILINGUAL SCHOOL STUDENTS
1980-1981

Principal: Mr. Samuel Kostman

Director: Mr. Jose Fraga

Prepared by the

BILINGUAL EDUCATION EVALUATION UNIT

Ruddie A. Irizarry, Manager
Judith A. Torres, Evaluation Specialist
Jose Luis Keyes, Consultant
Rima Shore, Ph.D., Consultant
Jose Villegas, Consultant

UD 022 482

NEW YORK CITY PUBLIC SCHOOLS
OFFICE OF EDUCATIONAL EVALUATION
RICHARD GUTTENBERG, DIRECTOR

ACKNOWLEDGEMENTS

The production of this report, as of all Bilingual Education Evaluation Unit reports, is the result of a cooperative effort of permanent staff and consultants. Rima Shore and Armando Cotayo have labored over and edited initial drafts, ensuring that they conformed to O.E.E. standards of scope and style. Dennis Joyce has spent many hours creating, correcting, and maintaining data files. Franco Marinai has patiently reviewed, edited, analyzed, and reported project data. Margaret Scorza has managed the production process, frequently editing and reformatting drafts and assuring that the reports are complete and accurate. Joseph Rivera has spent many hours producing, correcting, duplicating, and disseminating reports. Without their able and faithful participation the unit could not have handled such a large volume of work and still produced quality evaluation reports.

TABLE OF CONTENTS

		PAGE
I.	Context	1
	Community Setting	1
	School Setting	2
II.	Student Characteristics	4
III.	Program Description	6
	Philosophy	6
	History	6
	Organization	6
IV.	Instructional Component	9
	Student Placement, Programming, and Transition	9
	Mainstreaming	10
	English As A Second Language	11
	Native Language Instruction	12
	Content-Area Courses	13
V.	Non-Instructional Component	17
	Curriculum Development	17
	Supportive Services	17
	Staff Development	19
	Parental and Community Involvement	19
	Affective Domain	21
VI.	Findings	23
	Assessment Procedures, Instruments, and Findings	23
	Summary of Findings	43
VII.	Conclusions and Recommendations	45

LIST OF CHARTS AND TABLES

		PAGE
Chart 1.	Bilingual program organization within George Washington High School.	8
Table 1.	Number and percentage of students by country of origin.	5
Table 2.	Instruction in English as a second language.	11
Table 3.	Instruction in the native language.	12
Table 4.	Instruction in the content areas.	14
Table 5.	Results of the Criterion Referenced English Syntax Test (E.S.L. Title I Spanish-speaking students, fall).	27
Table 6.	Performance of students tested on the Criterion Referenced English Syntax Test (E.S.L. Title I Spanish-speaking students, fall).	28
Table 7.	Results of the Criterion Referenced English Syntax Test (E.S.L. Title I Spanish-speaking students, spring).	29
Table 8.	Performance of students tested on the Criterion Referenced English Syntax Test (E.S.L. Title I Spanish-speaking students, spring).	30
Table 9.	Native language reading achievement.	31
Table 10.	Number of Spanish-speaking students attending courses and percent passing teacher-made examinations in mathematics.	32
Table 11.	Number of Spanish-speaking students attending courses and percent passing teacher-made examinations in science.	34
Table 12.	Number of Spanish-speaking students attending courses and percent passing teacher-made examinations in social studies.	36
Table 13.	Number of Spanish-speaking students attending courses and percent passing teacher-made examinations in native language courses.	38

PAGE

Table 14. Number of Spanish-speaking students attending courses and percent passing teacher-made examinations in business education. 40

Table 15. Number of Spanish-speaking students attending courses and percent passing teacher-made examinations in vocational education. 41

Table 16. Significance of the difference between attendance percentages of program students and the attendance percentage of the school. 42

GEORGE WASHINGTON HIGH SCHOOL
A VITALIZED TRANSITIONAL PROGRAM FOR
BILINGUAL SCHOOL STUDENTS

LOCATION:	549 Audubon Avenue, New York, New York
YEAR OF OPERATION:	1980-1981
TARGET LANGUAGE:	Spanish
NUMBER OF PARTICIPANTS:	550 students
PRINCIPAL:	Mr. Samuel Kostman
DIRECTOR:	Mr. Jose Fraga

I. CONTEXT

COMMUNITY SETTING

George Washington High School is located on Manhattan's upper west side, some twenty blocks north of the George Washington Bridge, in the midst of apartment houses and small businesses. Two residential projects -- the Dyckman Houses and the George Washington Houses -- are in the area. Family-owned shops, discount stores, fast-food restaurants, supermarkets, and banks serve the community.

The area's population is approximately 75 percent Hispanic; immigrants from the Dominican Republic predominate. Twenty-three percent are black American. The remaining two percent, designated "other," include a number of Haitians. Spanish is the language used throughout the community by Hispanics for most purposes. Despite ethnolinguistic differences, no major problems resulting from ethnic/racial conflict have occurred in recent years.

The area is decidedly poor: many families qualify for public assistance; many live in sub-standard housing. A large number of the neighborhood's students are eligible for free school lunches, and many work part-time to help support their households.

The population is highly mobile. Newly arrived immigrants move into the area as their more settled neighbors move out to seek better living conditions. The area is said to be unsafe as robberies, muggings, and other crimes, particularly those related to drugs, are on the rise. Unemployment and the high incidence of teenage pregnancies are other factors which affect the community.

The community and surrounding neighborhoods have a number of educational resources, including several colleges and universities -- Boricua and City Colleges, Yeshiva and Columbia Universities, and the Manhattan Conservatory of Music. It also has libraries, museums, hospitals, parks, and recreational facilities. The Washington Heights Chamber of Commerce, banks, and the local merchants offer some employment opportunities.

Transportation is easily available, and busses and subways stop near the school. Many students walk to and from school, however, since the cost of transportation for students has increased in the city.

SCHOOL SETTING

The school is housed in a massive, five-story building constructed in the 1920's. Its ornate style and winding central staircase give the building a stately appearance. In general, the school and its facilities -- which include an all-weather track, an astroturf field, and tennis and handball

courts -- have been well maintained.

Enrolled in the school are 3,218 students, of whom approximately two-thirds are Spanish-speaking; the remaining third are English dominant, with the exception of a handful of students who are dominant in French/Creole or Urdu.

The bilingual project occupies a rather cramped office on the fourth floor. The office contains desks and equipment for several staff members, as well as a resource center. Bilingual classes are not conducted in one area or wing of the school, but are dispersed throughout the building in the areas designated for each department.

II. STUDENT CHARACTERISTICS

In Spanish, students range from functionally illiterate to a high level of proficiency. Most students who are deficient in Spanish have had little schooling in their countries of origin; little information about the quality of their previous education is available to the program. Students' range of proficiency in English is much narrower. Because so many students are recent arrivals and have little opportunity to use English in their communities, their English proficiency in general is low. They develop English skills slowly as they progress in the program. Their acquisition of English depends to a great extent on the school's offerings.

Academically, students range from few or no skills to a high degree of academic proficiency. Students in the program vary among themselves as well as from other Hispanic high school students in the city. The majority are from the Dominican Republic, and a large percentage of these come from a rural area on the island Cibao. Most students who lack basic academic skills are from this area, whereas those who have more and better schooling are from urban areas. Most program students have not studied foreign language, and are in the United States for the first time.

According to staff reports, students manifest an intense need for counseling and orientation. Students need assistance in setting realistic academic, vocational, and professional goals and in understanding how to achieve them. They need assistance in adapting to the complexity and diversity of the city. They must learn to be able to move from very personal relationships to the more impersonal style of a school or work setting.

In general, students' motivation to learn seems to be high. They form closely knit groups which are mutually supportive. They are active inside and outside school activities and appear to be friendly. They have strong patriotic feelings toward their countries of birth and tend to view personal achievement as an aspect of national achievement.

Program students are approximately equally distributed according to sex: 50 percent female and 50 percent male. Ethnically, they are all Hispanic from various Latin American countries. Table 1 illustrates the number and percentage of students by country of origin.

Table 1. Number and percentage of students by country of origin.

COUNTRY	NUMBER	PERCENT
Dominican Republic	468	85
Colombia	27	5
Ecuador	27	5
Cuba	11	2
Puerto Rico	11	2
El Salvador	6	1

- The majority of students (over four-fifths) were born in the Dominican Republic.
- All students are foreign-born Hispanics.
- All students' home language is Spanish.
- Percentages reflect trends in community ethnic composition in which Dominicans are the overwhelming majority and the South American population is increasing.

III. PROGRAM DESCRIPTION

PHILOSOPHY

The project has an articulated philosophy of bilingual education: to expedite the acquisition of English through native- and second-language instruction. The aim is to assist the student in making an adjustment to all-English instruction and completing graduation requirements. Practice, in fact, varies according to individual needs and abilities. The transitional philosophy is agreed upon by the school administration and faculty. The school principal stated that at first he was of the opinion that English as a second language (E.S.L.) instruction was sufficient to help bilingual students achieve, but he has now come to realize that a full bilingual education is necessary to accomplish this complex task at the high school level.

HISTORY

Bilingual courses have been offered at George Washington since 1970. However, in 1978 the administration appointed a committee to study and recommend a coordinated bilingual education program which would collaborate with all the school departments. Such a program was proposed to and funded by Title VII in 1979. The 1980-81 school year was the second and final year of the Title VII funding cycle.

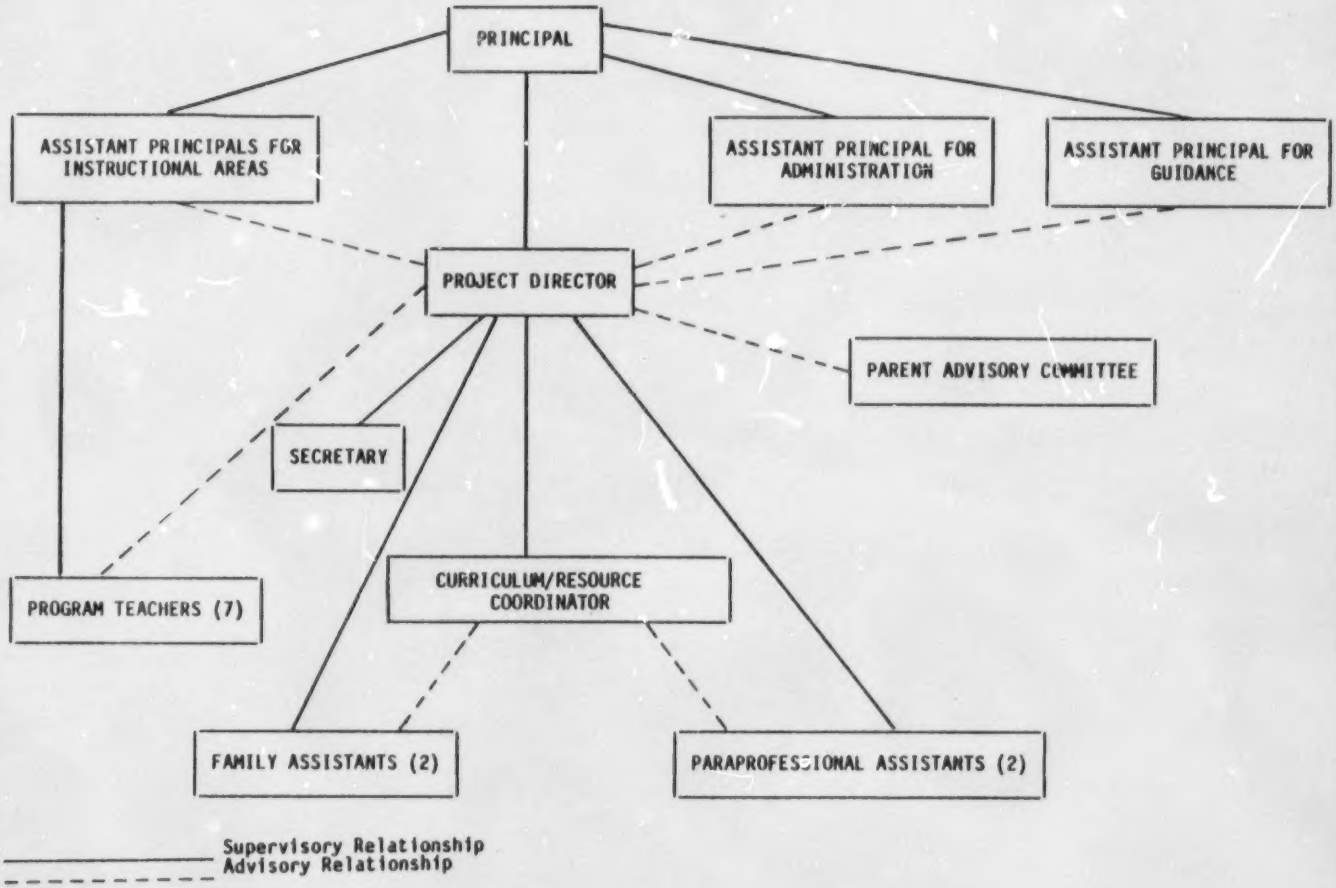
ORGANIZATION

The program functions under the direct supervision of the principal, with the assistance of chairpersons in charge of the various departments (assistant principals). There is no assistant principal for bilingual education at the school. The project is administered on a day-to-day basis

by the project director, who works closely with the assistant principals in charge of curriculum and supervision, as well as those in charge of guidance and administration. It was reported that the functions of director and coordinator were assigned to the same person so that decision-making and implementation might be consolidated. This arrangement, it is claimed, has helped program development.

Chart 1 illustrates program organization within the school.

Chart 1. Bilingual program organization within George Washington High School.



IV. INSTRUCTIONAL COMPONENT

STUDENT PLACEMENT, PROGRAMMING, AND TRANSITION

The project attempts to identify those students who require bilingual services when they enroll in the school. A series of placement tests and interviews are administered to potential candidates. Students who fall below the twenty-first percentile on the Language Assessment Battery (LAB) in English and who attain an acceptable score on the Spanish reading test, La Prueba de Lectura, are admitted to the project. The guidance counselor's and teachers' recommendations, as well as parents' and student's own preferences, are taken into account in the selection process.

The project presently serves Spanish-dominant students; students dominant in French/Creole, Urdu, and Oriental languages, who are enrolled in the school in relatively small numbers, are provided with E.S.L. instruction and are assigned to content-area courses in the mainstream.

Students' programs are assembled by the bilingual guidance counselor. Criteria for placement include results of placement tests, recommendations by the bilingual faculty, and the school system's graduation requirements. The student's academic record and course availability are also taken into account.

Students' programs are fairly uniform at each grade level. Departures from this pattern result from individual abilities; for example, students may need remedial work in math, or may be advanced in math beyond the sequence generally taken at his or her grade level.

Tracking takes place in the areas of language courses and in social studies. Due to the considerable volume of reading required in the Latin American civilization and western civilization courses, two versions of

these classes are offered for low achievers and for other students. Assignment to one of these two tracks is based on the individual student's reading proficiency in the native language, overall academic performance, and attendance record. The student's educational objectives are also considered: the tracks are designed to meet the needs of academically and vocationally oriented students, respectively. It is expected that academically oriented students will make the transition to a full English program more rapidly.

MAINSTREAMING

The bilingual project's goal is to mainstream students fully as soon as their linguistic proficiency permits effective participation in English language courses. The criteria applied for full mainstreaming include: a LAB score in English above the twenty-first percentile; recommendation by the bilingual staff and guidance counselor; successful performance in one or more mainstream class; and student and parental approval. The number of years that a student has lived in the United States is also considered. If students have lived in the United States for five or six years and still attend bilingual classes, their records are carefully examined.

As the above criteria suggest, students are partially mainstreamed before a full transition is attempted. At this stage, students take one or more content-area courses in English. In 1980-81, 87 students (approximately 16 percent of program students) were registered in mainstream classes. Of these, 45 were taking one mainstream course; 28 were taking two courses; 9 took three; and 5 took four. Some of these classes were advanced courses not available in the bilingual program; students are assigned to these courses at the discretion of the guidance counselor. Three hundred fifty bilingual students took physical education in the mainstream, and 25 enrolled in mainstream art classes.

Once students complete the E.S.L. sequence, they are fully mainstreamed. However, since the project was in its second year in 1980-81, no students had yet been fully mainstreamed. When students do exit the program, they will remain eligible to use the services of the bilingual resource center, to receive bilingual guidance, and to take part in the project's extra-curricular activities.

ENGLISH AS A SECOND LANGUAGE

Program students are placed in one of four levels of English as a second language. (See Table 2 below.) All levels of E.S.L. use the Larson-Wylie curriculum.

The evaluator visited an E.S.L. 4 class, at which 12 eleventh-graders were present. The teacher spoke in English for all but a few minutes of class time; Spanish was used briefly to clarify specific structures. The students spoke in English; communication among the students was not observed. The lesson was based on the textbook, Access to English as a Second Language, Book 2 (by Robert Breckenride, McGraw-Hill). The teacher presented a new grammatical structure, followed up with explanations, and ended with question-and-answer drills. The lesson was clearly presented, and appeared to involve students.

Table 2. Instruction in English as a second language.

COURSE	NO. OF CLASSES	AVERAGE REGISTER	PDS./WK.	DESCRIPTION
E.S.L. 1	5	20	10	Beginning
E.S.L. 2	5	22	10	Intermediate
E.S.L. 3	4	20	10	Advanced
E.S.L. 4	6	28	10	Transitional

NATIVE LANGUAGE INSTRUCTION

Native language instruction falls under the auspices of the school's foreign language department. Two double-period courses are offered for students whose native language skills are limited. The department also offers intermediate and advanced Spanish classes, a course in commerical Spanish, and courses in Spanish literature and Spanish drama. Table 3 outlines native language instruction.

Table 3. Instruction in the native language.

COURSE TITLE	NO. CLASSES FALL	SPRING	AVERAGE REGISTER	DESCRIPTION
Spanish U3	5	4	30	Intermediate Spanish
Spanish U4	3	4	28	Intermediate Spanish
Spanish U5	5	4	30	Advanced Spanish
Spanish U6	3	5	35	Advanced Spanish
Spanish U7	3	2	35	Spanish-American lit.
Spanish U8	1	2	20	Spanish-American lit.
Drama	1	1	35	Spanish drama
Commercial	2	2	30	Commercial Spanish

During the site visit, the evaluator observed an ungraded Spanish U3 class, at which 11 students were present (well below the estimated average register of 30 students for this course). Students read a selection from the text Cuentos y Mas Cuentos (by John Pittaro, published by D.C. Heath). The story related to students' everyday life; the reading selection was followed by comprehension and vocabulary exercises, in which new words were

studied in context. The teacher used a point system to reward students for class performance, a strategy which appeared to motivate students effectively. The lesson ended with an evaluation and a homework assignment. The class was characterized by excellent rapport between teacher and students, and active student participation. There were no discipline problems.

CONTENT-AREA COURSES

Overview

The program offers bilingual instruction in social studies, mathematics, and science. In addition, students may elect bilingual courses in vocational subjects, including bilingual typing and health careers.

While content-area courses are taught primarily in Spanish, teachers may introduce English at their discretion. Use of English in these courses depends on students' progress in language acquisition. In most cases, vocabulary is presented in both languages. In social studies and science, curriculum materials include several units which use English; the preparation of similar units in math was underway.

Table 4 outlines the content-area offerings of the bilingual program.

Table 4. Instruction in the content areas.

COURSE	FALL REGISTRATION	SPRING REGISTRATION
American studies	5	34
Economics	-	2
Western civilization	80	123
Latin American civ.	125	135
General science I	104	-
General science II	-	118
Biology I-A	55	22
Biology II-G	-	33
Health careers	-	7
Arithmetic computation	50	65
Math fundamentals	130	130
Business arithmetic	25	50
Algebra A	118	85
Algebra B	-	76
Bilingual Typing 1	86	-
Bilingual Typing 2	-	80

Social Studies

Two bilingual social studies courses are offered under the auspices of the social studies department: Latin American civilization and western civilization. Because these classes require a considerable volume of reading, they are offered in two versions: for low achievers and for other students. Assignment to one of these tracks is based on the individual student's reading proficiency, overall academic performance, and attendance record, the student's educational objectives -- academic or vocational -- are also taken into account.

In addition the program offers a one-semester course for newly arrived students, entitled Introduction to New York City, which is designed to orient students not only to their borough and city, but also to aspects of urban American culture.

The evaluator visited a class in western civilization. It was an ungraded class of 20 students; the lesson focused on a series of questions about a film which had been presented on the previous day; therefore, no textbook was used. The teacher asked a series of questions, guiding the lesson to clarify or elaborate on the issues raised by the film. Rapport between teacher and students and class participation were excellent.

The students' native culture is incorporated into the Latin American civilization course, in which students study the geography and cultures of Latin American countries. (In addition, the foreign languages department curricula incorporate into native language instruction the culture, history, and literatures of Latin America.)

Vocational Education

In 1980-81, the project offered a course in health careers for bilingual students, and a two-course sequence of bilingual typing.

Mathematics

The bilingual program offers the following courses in mathematics: arithmetic computation, business math, math fundamentals, and algebra.

The evaluator observed a class in math fundamentals which was composed of 19 tenth and eleventh graders. Assignment to the class was based on placement tests and recommendations by teachers and the guidance counselor. The lesson focused on the multiplication of fractions. No textbook was used; the teacher wrote material on the blackboard, and students copied it in their notebooks. Although the department's language policy called for introduction of terminology in Spanish and English, no English was used in the lesson. Discipline was more of a problem in this class than in other classrooms observed during the site visit.

V. NON-INSTRUCTIONAL COMPONENT

CURRICULUM DEVELOPMENT

The development of materials geared to bilingual students' needs constitutes a primary goal of the project and is carried out by the Title VII resource coordinator. During 1980-81, materials were developed for the following courses:

Introduction to New York City
Latin American civilization
Western civilization
Algebra-C
General science II
Spanish language

The project consults with other Title VII projects about course development and textbook acquisition. Texts for program courses and additional books for the project's resource center were purchased during the school year. Tape recorders and xerograph machines were also acquired to facilitate the development and duplication of materials.

SUPPORTIVE SERVICES

A bilingual guidance counselor and bilingual grade advisor, both supported with tax-levy monies, provided support services to participating students. Two Title VII family assistants make home visits. These staff members work with students to reduce the effects of culture shock; their premise is that newcomers' inability to understand and adjust to the demands of an unfamiliar cultural setting inhibits learning.

Students receive individual and group guidance. Career counseling is also available to students; a New York State Employment Service counselor visits the bilingual office three days per week.

A full-time and part-time family worker make home visits to advise parents when students are failing courses, to discuss absenteeism, chronic truancy, or students' decisions to drop out of school. They make special efforts to visit homes when phone contact is not possible, when a student has been out of school due to extended illness, or when problems in the home appear to be affecting students' performance in the program.

Staff members may phone or write to parents with information about program activities, or to discuss students' academic progress or problems, attendance, or other issues. Some 30 to 50 calls are made each week to students' homes; telephone contact tends to be more frequent when report cards are issued, at which time parents often initiate calls.

The project utilizes outside resources to widen the scope of supportive services. An aide from the Board of Education's support services team comes to the school each day to assist in family counseling and home visits. The team also provides the services of a psychologist who visits the school periodically. Although their facility in Spanish is limited, they nevertheless provide valuable services to students. Other services are provided by social service agencies or community-based projects in the area, including Columbia Presbyterian Hospital, the Jewish Memorial Hospital, the Auxiliary Services For High Schools program of the Board of Education, the Dominican Project, the Manpower Project, and the Door Project. The bilingual program refers students or their families to these services and follows up after contact is made.

Staff members noted that limited staff time keeps the project from offering some services which could benefit students. These include in-depth career services and an equivalency-degree program for overage students.

The project would also like to offer more intensive small-group counseling for students and parents.

STAFF DEVELOPMENT

A further objective of the bilingual project is the ongoing development of the staff's qualifications. An initial orientation meeting was held for the entire staff in the fall. Monthly department meetings were attended by both professional and paraprofessional staff members; teachers also attended semi-annual faculty meetings.

Program staff took part in workshops and conferences during the school year. Four staff members attended workshops at the SABE conference; one staff member attended the NABE conference in Boston, participating in two days of workshops on vocational education. Staff members also participated in workshops sponsored by the State Education Department, the New York City Office of Bilingual Education, and the New York chapter of SABE.

Title VII funds supported university courses attended by staff members. Eight staff members reported that they were enrolled in job-related courses at New York University, Columbia Teachers College, Fordham University, or City College. One individual attended a seminar on human relations at the Basic Youth Conflicts Institution in Ocean Grove, New Jersey.

PARENTAL AND COMMUNITY INVOLVEMENT

The bilingual project sponsors a parent-student advisory committee whose members in 1980-81 included four parents, three students, two teachers, and the project director. The committee met ten times during the school year to follow and offer advice on program implementation. Parents were encouraged to take part in the school's After-School Occupational Skills

Program, which entailed career-oriented courses offered two afternoons a week. The school also offers a General Equivalency Diploma program to prepare adults for New York State's high school equivalency examination; the Business Skills for Adults Program, held on Saturday mornings, includes E.S.L. classes for adults. Bilingual parents were reluctant to enroll in these courses; their participation was minimal.

Bilingual parents participated more fully in other school activities. Relatives of bilingual students constituted 15 percent of parents in the school's Parent-Teacher Association (P.T.A.) They took part in such activities as the Pan American assembly, the scholarship award day, and Dominican Independence Day; they accompanied students on project-sponsored trips to the Museum of Natural History, the Planetarium, and a Spanish-language theater.

An average of five parents contacted the bilingual office each day. The project encouraged parental participation through phone calls and home visits (discussed in the section on support services, above), as well as through mailings and the distribution of a newsletter.

Parental involvement in school events has been adversely affected by several factors. Many people feared attending school functions in the evening, when security problems discouraged mothers from venturing out. Financial problems, childcare responsibilities, employment schedules, and other problems affected participation. A further impediment was the parents' assumption, based on experience in their native country, that education is the sole responsibility of the school.

The most successful aspect of this component has been parents' participation in P.T.A. meetings and Open House meetings. Most of these meetings

were held during the late morning in parents' homes; in addition, monthly meetings took place at the school.

AFFECTIVE DOMAIN

Students' attendance and participation in extracurricular activities suggest the program's impact on self-concept, and therefore are reported in this section.

Students' attendance was quite high throughout the school year, and in general exceeded that of the student body as a whole. Staff members stated that truancy is less prevalent in the bilingual program than in the mainstream.

Nearly one-third of the bilingual population took part in extracurricular activities, including basketball, football, soccer, swimming, and track, as well as drama. Some signed up for a summer sports camp program, run by seven head coaches and eleven assistant coaches from different high schools and colleges in the city.

Students' achievement of honors further reflects the program's impact. In 1980-81, bilingual students received 20 scholarship certificates, 14 awards in science, 25 in social studies, 20 in typing, and one for outstanding achievement in language. Eleven students participated in the Spanish literature contest; two won Pan American Day awards.

Approximately 10 percent of the bilingual students held after-school jobs and about a quarter had summer jobs. Drug and alcohol abuse were not apparent problems; neither was gang membership. No students were suspended during the school year. The program's facilities showed no signs of vandalism.

Students showed no hesitation about visiting the project office to seek help in school matters, family problems, and employment needs.

VI. FINDINGS

ASSESSMENT PROCEDURES, INSTRUMENTS, AND FINDINGS

The following section presents the assessment instruments and procedures, and the results of the testing to evaluate student achievement in 1980-1981.

Students were assessed in English language development, growth in their mastery of their native language, mathematics, social studies, science, business education, and vocational education.

The following are the areas assessed and the instruments used:

English as a second languge -- CREST (Criterion Referenced English Syntax Test, Levels I, II, III)

Reading in Spanish -- Interamerican Series, Prueba de Lectura (Total Reading, Forms A and B)

Mathematics performance -- Teacher-made tests

Science performance -- Teacher-made tests

Social studies performance -- Teacher-made tests

Native language arts performance -- Teacher-made tests

Business education performance -- Teacher-made tests

Vocational education performance -- Teacher-made tests

Attendance -- School and program records

The following analyses were performed:

On pre/post standardized tests of native language achievement statistical and educational significance are reported.

Statistical significance was determined through the application of the correlated t-test model. This statistical analysis demonstrates

whether the difference between pre-test and post-test mean scores is larger than would be expected by chance variation alone; i.e. is statistically significant. This analysis does not represent an estimate of how students would have performed in the absence of the program. No such estimate could be made becauase of the inapplicability of test norms for this population, and the unavailability of an appropriate comparison group.

Educational significance was determined for each grade level by calculating an "effect size" based on observed summary statistics using the procedure recommended by Cohen.[1] An effect size for the correlated t-test model is an estimate of the difference between pre-test and post-test means expressed in standard deviation units freed of the influence of sample size. It became desirable to establish such an estimate because substantial differences that do exist frequently fail to reach statistical significance if the number of observations for each unit of statistical analysis is small. Similarly, statistically significant differences often are not educationally meaningful.

Thus statistical and educational significance permit a more meaningful appraisal of project outcomes. As a rule of thumb, the following effect size indices are recommended by Cohen as guides to interpreting educational significance (ES):

a difference of 1/5 = .20 = small ES

a difference of 1/2 = .50 = medium ES

a difference of 4/5 = .80 = large ES

---

[1]Jacob Cohen. Statistical Power Analysis for the Behavioral Sciences (Revised Edition). New York: Academic Press, 1977. Chapter 2.

The instrument used to measure growth in English language was the Criterion Referenced English Syntax Test (CREST), which tests mastery of specific syntactic skills at three levels. Material at the beginning and intermediate levels of the CREST is broken down into 25 objectives per level, such as present-tense forms of the verb "to be" (Level I), or possessive adjectives and pronouns (Level II). Material at the advanced level (Level III) is organized into 15 objectives, such as reflexive pronouns. At each level, students are asked to complete four items for each objective. An item consists of a sentence frame for which the student must supply a word or phrase chosen from four possibilities. Mastery of a skill objective is determined by a student's ability to answer at least three out of four items correctly.

This report provides information on the average number of objectives mastered, and the average number of objectives mastered per month of treatment.

Performance breakdowns are reported in two ways. First, a grade and level breakdown is reported for students who were pre- and post-tested with the same test level. Second, results for the combined sample are reported for the average number of objectives mastered at pre- and post-testings, and the average number of objectives mastered per month of treatment.

The results of the criterion referenced tests in mathematics, social studies, science, native language arts, business education, and vocational education are reported in terms of the number and percent

of students achieving the criterion levels set for the participants (70 percent passing).

Information is provided on the attendance rate of students participating in the bilingual program compared with that of the total school population.

The following pages present student achievement in tabular form.

Table 5. Results of the Criterion Referenced English Syntax Test (CREST): number of objectives mastered, and objectives mastered per month.

(E.S.L. Title I Spanish-speaking students, fall)

Grade	# of Students	Average Number of Objectives Mastered Pre	Post	Objectives Mastered*	Average Months of Treatment	Objectives Mastered Per Month
9	89	7.1	11.7	4.6	2.9	1.59
10	143	8.5	13.4	4.9	2.8	1.75
11	8	5.9	9.9	4.0	2.8	1.43
TOTAL	240	7.9	12.6	4.7	2.8	1.68

*Post-test minus pre-test.

- Students gained mastery of an average of 4.7 objectives during the fall instructional months.
- The average gain of 1.68 objectives per month was substantial as were the gains for each grade.
- Mastery rates ranged from 1.43 objectives per month for the eleventh-grade students to 1.75 objectives per month for the tenth-grade students.

Table 6. Performance of students tested on the Criterion Referenced English Syntax Test (CREST): average number of objectives mastered by grade and test level.

(E.S.L. Title I Spanish-speaking students, fall)

	LEVEL I				LEVEL II				LEVEL III			
		Average Number of Objectives Mastered				Average Number of Objectives Mastered				Average Number of Objectives Mastered		
Grade	N	Pre	Post	Gain*	N	Pre	Post	Gain*	N	Pre	Post	Gain*
9	74	6.6	10.8	4.2	15	9.7	16.2	6.5	----------			
10	66	8.9	13.3	4.4	73	8.3	13.6	5.3	4	6.5	10.5	4.0
11	----------				----------				8	5.9	9.9	4.0
TOTAL	140	7.7	12.0	4.3	88	8.5	14.0	5.5	12	6.1	10.1	4.0

NOTE: number of objectives for each level: Level I (25), Level II (25), Level III (15).

*Post-test minus pre-test.

.Students were predominantly functioning on Levels I and II of the CREST.

.Students' pre-test scores were proportionately higher on the higher test levels (Level I = 7.7 out of 25, Level II = 8.5 out of 25, Level III = 6.1 out of 15).

.Students' post-test scores were also proportionately higher on the higher levels (Level I = 12.0 out of 25, Level II = 14.0 out of 25, Level III = 10.1 out of 15).

Table 7. Results of the Criterion Referenced English Syntax Test (CREST): number of objectives mastered, and objectives mastered per month.

(E.S.L. Title I Spanish-speaking students, spring)

Grade	# of Students	Average Number of Objectives Mastered Pre	Post	Objectives Mastered*	Average Months of Treatment	Objectives Mastered Per Month
9	133	7.4	12.8	5.4	2.67	2.02
10	184	6.0	9.9	3.9	2.63	1.48
TOTAL	317	6.6	11.1	4.5	2.64	1.70

*Post-test minus pre-test.

- Students gained mastery of an average of 4.5 objectives during the spring instructional months.
- The average gain of 1.70 objectives per month was substantial as were the gains for each grade.
- The number of students for whom scores on both pre- and post-tests were reported increased from the fall (fall = 240, spring = 317).

Table 8. Performance of students tested on the Criterion Referenced English Syntax Test (CREST): average number of objectives mastered by grade and test level.

(E.S.L. Title I Spanish-speaking students, spring)

	LEVEL I				LEVEL II				LEVEL III			
		Average Number of Objectives Mastered				Average Number of Objectives Mastered				Average Number of Objectives Mastered		
Grade	N	Pre	Post	Gain*	N	Pre	Post	Gain*	N	Pre	Post	Gain*
9	99	6.9	12.5	5.6	25	9.6	14.6	5.0	9	7.4	10.3	2.9
10	38	6.7	11.7	5.0	77	6.4	10.9	4.5	69	5.1	7.7	2.6
TOTAL	137	6.8	12.3	5.5	102	7.2	11.8	4.6	78	5.4	8.0	2.6

NOTE: number of objectives for each level: Level I (25), Level II (25), Level III (15).

*Post-test minus pre-test.

- In spring, students were learning at all three instructional levels.
- Students' pre-test scores, post-test scores, and gains by level were generally comparable (considering the different number of objectives at Levels I and II, and Level III).
- Students' post-test scores were approximately half of the total objectives measured by the test.

Table 9. Native language reading achievement.

Significance of mean total raw score differences between initial and final test scores in native language reading achievement of students with full instructional treatment on the Prueba de Lectura (total reading, Level 3, Forms A and B).

		Pre-test		Post-test						
Grade	N	Mean	Standard Deviation	Mean	Standard Deviation	Mean Difference	Corr. Pre/post	t	p	ES
9	101	39.4	14.1	62.3	15.4	22.9	.41	14.27	.001	1.42
10	174	46.0	15.1	64.8	14.4	18.8	.63	19.50	.001	1.48
11	27	47.3	15.3	68.1	14.6	20.8	.38	6.49	.001	1.25
12	1	53	--	64	--	11	--	--	--	--
TOTAL	303	43.9	15.1	64.3	14.7	20.3	.53	24.62	.001	1.41

.All gains were statistically significant.

.All gains were of very high educational significance.

.A t value and educational significance were not computed for the twelfth grade because only one student was reported.

Table 10. Number of Spanish-speaking students attending courses and percent passing teacher-made examinations in mathematics.

FALL COURSES	GRADE 9 N	GRADE 9 % PASSING	GRADE 10 N	GRADE 10 % PASSING	GRADE 11 N	GRADE 11 % PASSING	TOTAL N	TOTAL % PASSING
Math*	1	100	9	78	9	100	19	89
General Math I	95	72	58	79	6	83	159	75
Fundamental Math (I)	39	51	86	72	5	80	130	66
Business math	3	67	17	47	5	60	25	52
Algebra A, Academic	18	67	82	67	18	83	118	69
TOTAL	156	66	252	71	43	84	451	70

SPRING COURSES	GRADE 9 N	GRADE 9 % PASSING	GRADE 10 N	GRADE 10 % PASSING	GRADE 11 N	GRADE 11 % PASSING	TOTAL N	TOTAL % PASSING
Math**	4	75	12	50	8	75	24	62
General Math II	7	71	6	50	2	50	15	60
Fundamental Math (I)	62	77	63	67	5	80	130	72
Business Math	1	--	43	51	6	83	50	54
Algebra A, Academic	39	82	42	71	4	100	85	78
Algebra B, Academic	10	100	59	88	7	100	76	91
TOTAL	123	80	225	69	32	84	380	74

Table 10.
(continued)

*This category comprises the following courses: general math II, general math III, remedial math I, remedial math II, algebra II (academic), algebra III (academic), intermediate algebra I, intermediate algebra II, geometry I, geometry II.

**This category comprises the following courses: general math III, remedial math I, remedial math II, BCT math, intermediate algebra I, intermediate algebra II, geometry I, II, III, advanced algebra, and trigonometry.

- Spanish-speakers' performances in mainstream and bilingual mathematics classes in the fall was as follows: 66 percent of the ninth graders, 71 percent of the tenth graders, and 84 percent of the eleventh graders passed. The overall passing rate for the three grades just reached the criterion level of 70 percent.

- Performances by students in fundamental math, business math, and algebra A were below the criterion level of 70 percent.

- In the spring, 80 percent of the ninth-grade Spanish speakers, 69 percent of the tenth graders, and 84 percent of the eleventh graders passed mainstream and bilingual mathematics courses.

- The highest pass rate in the spring (91 percent) was achieved by the algebra B students.

- "Unclassified" math students, General Math II, and business math students did not reach the criterion level of 70 percent passing.

- The number of students in the mathematics classes dropped about 15 percent from the fall to the spring.

Table 11. Number of Spanish-speaking students attending courses and percent passing teacher-made examinations in science.

FALL COURSES	GRADE 9 N	GRADE 9 % PASSING	GRADE 10 N	GRADE 10 % PASSING	GRADE 11 N	GRADE 11 % PASSING	TOTAL N	TOTAL % PASSING
Science	1	100	2	50	1	100	4	75
Biology I, Academic	2	100	34	47	19	100	55	67
General Science I	22	73	81	95	1	100	104	90
General Science II, Academic	3	33	5	100	2	100	10	80
TOTAL	28	71	122	81	23	100	173	82

SPRING COURSES	GRADE 9 N	GRADE 9 % PASSING	GRADE 10 N	GRADE 10 % PASSING	GRADE 11 N	GRADE 11 % PASSING	TOTAL N	TOTAL % PASSING
Science	1	--	2	50	1	100	4	50
Biology I, Academic	1	100	15	87	6	100	22	91
Biology II, Academic	1	--	21	86	11	91	33	85
General Science I	6	67	12	67	2	--	20	60
General Science II, Academic	14	57	86	77	18	94	118	74
Health Careers	1	100	5	100	1	100	7	100
TOTAL	24	58	141	79	39	90	204	78

Table 11.
(continued)

- In the fall, 71 percent of ninth-grade Spanish speakers, 81 percent of tenth graders, and 100 percent of the eleventh graders passed mainstream and bilingual science courses. The overall fall pass rate was 82 percent: all groups surpassed the criterion level of 70 percent.

- Students in the biology I, academic course had a pass rate of 67 percent and did not meet the 70 percent criterion level.

- In the spring, 58 percent of the ninth graders, 79 percent of the tenth graders, and 90 percent of the eleventh graders passed mainstream and bilingual science courses. The overall pass rate was 78 percent. The ninth graders did not reach the criterion level of 70 percent.

- The highest spring pass rate of 100 percent was achieved by 7 students in health careers, 7 students in biology I, Academic, and 1 eleventh-grade student in (unclassified) science classes.

- Students in unclassified science classes, and general science I did not reach the 70 percent criterion pass rate.

- The number of students in the science courses in the spring increased about 15 percent from the fall.

Table 12. Number of Spanish-speaking students attending courses and percent passing teacher-made examinations in social studies.

FALL COURSES	GRADE 9 N	GRADE 9 % PASSING	GRADE 10 N	GRADE 10 % PASSING	GRADE 11 N	GRADE 11 % PASSING	GRADE 12 N	GRADE 12 % PASSING	TOTAL N	TOTAL % PASSING
Western Civilization	6	67	55	65	18	67	1	100	80	66
American Studies I	2	--	1	--	2	50			5	20
Latin American Studies	34	41	77	55	12	75			123	53
Asian Studies	1	100							1	100
Human Needs	70	69	37	84	2	100			109	74
Revolution and Violence			1	--					1	--
TOTAL	113	59	171	64	34	71	1	100	319	63

SPRING COURSES	GRADE 9 N	GRADE 9 % PASSING	GRADE 10 N	GRADE 10 % PASSING	GRADE 11 N	GRADE 11 % PASSING	GRADE 12 N	GRADE 12 % PASSING	TOTAL N	TOTAL % PASSING
Eastern Civilization			1	--					1	--
Western Civilization	28	61	81	62	14	92			123	65
American History I, Academic	1	100							1	100
Economics, Academic					1	100			1	100
Economics, General			1	100					1	100
American Studies I	3	67	12	67	19	100			34	85
Latin American Studies	54	72	74	73	6	83	1	--	135	73
Asian Studies	2	50	3	67	1	100			6	67
Other Native Heritage Study	1	100							1	100
Human Needs	49	71	23	74					72	72
TOTAL	138	70	195	68	41	95	1	--	375	72

Table 12.
(continued)

- Spanish-speakers in mainstream and bilingual social studies in the fall classes passed at a rate of 59 percent in the ninth grade, 64 percent in the tenth grade, and 71 percent in the eleventh grade. The overall passing rate was 63 percent and did not meet the criterion level of 70 percent.

- Students in the human needs courses, with a passing rate of 74 percent, were the only group to reach the 70 percent criterion level.

- The passing rate in the spring for mainstream and bilingual social studies students was 70 percent for ninth graders, 68 percent for tenth graders, and 95 percent for eleventh graders. The overall passing rate of 72 percent surpassed the criterion level.

- The highest pass rate of 85 percent was achieved by students in the American studies I courses.

- Students in the western civilization and Asian studies courses did not meet the criterion level of 70 percent.

- The number of students reported increased by about 18 percent from the fall to the spring.

Table 13. Number of Spanish-speaking students attending courses and percent passing teacher-made examinations in native language courses.

FALL COURSES	GRADE 9 N	GRADE 9 % PASSING	GRADE 10 N	GRADE 10 % PASSING	GRADE 11 N	GRADE 11 % PASSING	TOTAL N	TOTAL % PASSING
Native Language Level II, Academic	151	82	237	89	38	97	426	88
Native Language Level III, Academic					1	100	1	100
Native Language Level IV, Academic			1	100			1	100
TOTAL	151	82	238	89	39	97	428	88

SPRING COURSES	GRADE 9 N	GRADE 9 % PASSING	GRADE 10 N	GRADE 10 % PASSING	GRADE 11 N	GRADE 11 % PASSING	TOTAL N	TOTAL % PASSING
Native Language Level II, Academic	23	52	18	72	1	100	42	62
Native Language Level III, Academic	136	84	221	81	22	100	379	83
Native Language Level IV, Academic			1	100	1	100	2	100
TOTAL	159	79	240	80	24	100	423	81

Table 13.
(continued)

- In the fall, Spanish-speaking students achieved an overall passing rate of 88 percent in Spanish courses for native speakers, well above the 70 percent criterion level. The passing rates ranged from 82 percent in the ninth grade to 97 percent in the twelfth grade.

- Almost all of the students reported were taking level II native language courses, for which the passing rate was an excellent 88 percent.

- In the spring, ninth graders achieved a 79 percent passing rate, tenth graders an 80 percent rate, and eleventh graders a 100 percent rate. The overall percentage of those passing was 81 percent, surpassing the criterion level.

- Students in the level II academic courses, with a passing rate of 62 percent, did not meet the criterion.

- In the spring, about 90 percent of the students were in level III courses.

- The number of students reported was almost constant from fall to spring.

Table 14. Number of Spanish-speaking students attending courses and percent passing teacher-made examinations in business education.

FALL COURSES	GRADE 9 N	GRADE 9 % PASSING	GRADE 10 N	GRADE 10 % PASSING	GRADE 11 N	GRADE 11 % PASSING	TOTAL N	TOTAL % PASSING
Typing	31	90	45	91	9	100	85	92
Commercial Record Keeping					1	100	1	100
TOTAL	31	90	45	91	10	100	86	92

SPRING COURSES	GRADE 9 N	GRADE 9 % PASSING	GRADE 10 N	GRADE 10 % PASSING	GRADE 11 N	GRADE 11 % PASSING	TOTAL N	TOTAL % PASSING
Typing	28	61	46	85	6	100	80	77
Commercial Record Keeping			1	100			1	100
Medical Office Practice					1	100	1	100
TOTAL	28	61	47	85	7	100	82	78

- In the fall, 90 percent of the ninth graders, 91 percent of the tenth graders, and 100 percent of the eleventh graders passed mainstream and bilingual business education courses. The overall passing rate was 92 percent, considerably above the 70 percent criterion level.
- All students but one were enrolled in typing.
- In the spring, 61 percent of the ninth graders, 85 percent of the tenth graders, and 100 percent of the eleventh graders passed mainstream and bilingual business education courses. The ninth graders did not reach the 70 percent criterion level. Overall, the pass rate was 78 percent.
- All but two students enrolled in business classes were taking typing.
- The number of students reported declined slightly from the fall to the spring.

Table 15. Number of Spanish-speaking students attending courses and percent passing teacher-made examinations in vocational education.

FALL COURSES	GRADE 9 N	GRADE 9 % PASSING	GRADE 10 N	GRADE 10 % PASSING	GRADE 11 N	GRADE 11 % PASSING	TOTAL N	TOTAL % PASSING
Auto Mechanics			4	75			4	75
Keypunch Operation			2	100	1	100	3	100
TOTAL			6	83	1	100	7	86

SPRING COURSES	GRADE 9 N	GRADE 9 % PASSING	GRADE 10 N	GRADE 10 % PASSING	GRADE 11 N	GRADE 11 % PASSING	TOTAL N	TOTAL % PASSING
Auto Mechanics	1	--	1	100			2	50

- The number of students taking mainstream and bilingual vocational education courses was seven students in the fall and two in the spring. As the number of students was so small, changes in the number of students passing appeared as large percentage differences.
- In the fall, one student failed auto mechanics yielding a passing rate of 75 percent.
- Both students in the fall passed keypunch operation for a passing rate of 100 percent.
- One out of two students failed the auto mechanics course in the spring, for a passing rate of 50 percent.

Table 16. Significance of the difference between attendance percentages of program students and the attendance percentage of the school.

Average School-Wide Attendance Percentage: 74.29

Grade	N	Mean Percentage	Standard Deviation	Percentage Difference	t	p
9	188	90.18	14.48	15.89	15.05	.001
10	285	91.23	11.71	16.94	24.42	.001
11	45	96.84	10.38	22.55	14.57	.001
12	1	80.00	--	5.71	--	--
TOTAL	519	91.31	12.78	17.02	30.34	.001

- The differences were all very statistically significant, except for the twelfth grade, for which only one student was reported.
- The overall difference in attendance between the program students and the school was a substantial 17 percent.

SUMMARY OF FINDINGS

In English reading achievement in the fall, program students tested on the Criterion Referenced English Syntax Test demonstrated a substantial average gain of 1.68 objectives mastered per month of instruction. In the spring, the demonstrated average gain was 1.7 objectives mastered per month.

In native language reading, program students in all grades demonstrated statistically and highly educationally significant gains on the Prueba de Lectura.

In mainstream and bilingual mathematics courses, the overall passing rate of Spanish-speaking students in the fall equalled the criterion level set by the program (that 70 percent of the participants would pass teacher-developed examinations in mathematics). The ninth-grade students were the only group unable to reach this objective in the fall. The overall passing rate in mathematics courses in the spring was 74 percent. While ninth- and eleventh-grade students exceeded the criterion level, tenth graders came close to but did not reach the program objective. Passing rates varied substantially from course to course in both terms.

The overall passing rate for program students enrolled in fall mainstream and bilingual science courses was 82 percent. All grades reached and surpassed the criterion level of 70 percent passing. In the spring, the overall passing rate was 78 percent. The ninth-grade students were the only group failing to met the program objective this semester.

In mainstream and bilingual social studies courses, the overall passing rate was 63 percent in the fall and did not reach the criterion level of 70 percent. Only the eleventh-grade students and the one twelfth

grader reported met and exceeded the program objective. In the spring, the overall passing rate in social studies courses was 72 percent. Students in grade 10 came close to but did not reach the criterion level.

The overall passing rates in native language arts courses were 88 percent in the fall and 81 percent in the spring. All grades met and surpassed the criterion level of 70 percent passing in both semesters.

In the fall, the overall passing rate of students enrolled in mainstream and bilingual business education courses was 92 percent. All grades met and considerably surpassed the program objective of 70 percent passing. The overall passing rate in the spring was 78 percent. The ninth-grade students were the only group unable to reach the criterion level.

The overall passing rate of seven students enrolled in mainstream and bilingual vocational education courses in the fall was 86 percent and exceeded the program objective of 70 percent passing. In the spring, one out of two students failed the vocational education course, for an overall passing rate of 50 percent.

The differences between the attendance percentages of program students and the attendance percentage of the school were all highly statistically significant.

VII. CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

The bilingual project at George Washington High School functioned effectively in 1980-81, and appeared to realize its major objectives. It has provided LEP students with intensive instruction in English, and has at the same time allowed them to function at a relatively sophisticated level in the content areas by providing instruction in the native language. It has also provided, within the school's structure, a unit with which students may identify; this has lessened culture shock to some degree.

The project appears to enjoy the support of the school's administration and, with some exceptions, of the mainstream faculty. Interdepartmental relations have presented no major difficulties. Students' attendance, rapport with the staff, and discipline appear to be excellent. Parental participation, while in need of attention, appears to be improving.

While curricula and materials are being implemented and appear to be appropriate to students' needs, the need for better and more varied bilingual materials is an ongoing concern of the program staff, particularly in the areas of social studies and science. A staff development component which offers more specific assistance to teachers within the school setting would also enhance the program's function.

The following recommendations are offered by the evaluation team:

1) Further efforts might be made to sensitize the mainstream faculty to the role of the project and the objectives of bilingual education in general.

2) Ties with the community might be strengthened by issuing more newsletters or news reports to the community, inviting community leaders to take greater part in project events, and using the community's resources more effectively.

3) The resource coordinator and project director might explore new avenues for locating bilingual materials for acquisition or adaptation by the project. Discussion with other Title VII projects in the city might be the most appropriate starting point for this effort.

4) The staff might discuss how bilingual parents can be encouraged to take advantage of the school's afternoon courses for parents, and in general to participate more fully in project activities.

5) The project director and/or resource coordinator might organize staff development workshops in the school setting, particularly to suggest methods of implementing newly developed materials in the classroom.

6) The possibility of introducing a more systematic data collection system might be explored by the project director.